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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,473	04/29/2005	Carlos F. Fuente	GB920020085US1	4063
46335	7590	09/04/2007		
DILLON & YUDELL, LLP 8911 N CAPITAL OF TEXAS HWY SUITE 2110 AUSTIN, TX 78759			EXAMINER LOONAN, ERIC T	
			ART UNIT	PAPER NUMBER
			2189	
			MAIL DATE	DELIVERY MODE
			09/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,473

Applicant(s)

FUENTE ET AL.

Examiner

Eric Loonan

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 21 March 2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This is the initial Office action based on the 10/533,473 application filed 29 April 2005. **Claims 1-18**, as originally filed, are currently pending and have been considered below.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 13-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims fail to place the invention squarely within one statutory class of invention. At sections [0045] and [0046] of the instant specification, applicant has provided evidence that applicant intends the "medium" to include signals. As such, the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore this claim(s) is/are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not a combination of substances and therefore not a composition of matter.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2189

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 3-7, 9- 13, and 15-18** are rejected under 35 U.S.C. 102(b) as being anticipated by Ohran (US Patent 5,835,953).

4. **Claims 1, 7, 13:** Ohran teaches a method comprising: storing a copy of metadata specifying a coherency relationship between a region of data and a flash copy image of said region of data within a cache (Col 22, Lines 38-52; Col 27, Lines 36-47), wherein said metadata is subject to one or more lock protocols controlled by an owner storage controller node (Col 27, Lines 47-67; Col 28, Lines 1-3); receiving a request to perform an input/output operation on at least one of said region of data and said flash copy image of said region of data at a client storage controller node; and performing said input/output operation utilizing an input/output performing component of said client storage controller node and said copy of said metadata (Fig 4 and 5; It is inherent that an I/O operation is performed on the region of data, backup region of data, and metadata during the backup process).

5. **Claims 3, 9, 15:** Ohran teaches a method wherein said copy of said metadata comprises, a previous positive confirmation that said region of data and a flash copy comprising said flash copy image of said region of data are consistent (Col 29, Lines 15-30).

6. **Claims 4, 10, 16:** Ohran teaches a method further comprising: discarding said previous positive confirmation utilizing said input/output performing component (Col 30, Lines 5-28).

7. **Claims 5, 11, 17:** Ohran teaches a method wherein said previous positive confirmation further comprises a positive confirmation that a further region of data, contiguous with said region of data, is consistent with said flash copy (Col 30, Lines 5-28).
8. **Claims 6, 12, 18:** Ohran teaches a method further comprising: selectively discarding said copy of said metadata to maintain a reduced cache storage area including said cache (Col 30, Lines 5-28).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. **Claims 2, 8, 14** are rejected under 35 U.S.C. 103(a) as being obvious over Ohran in view of Ofer (US Patent 5,892,955).

In claims 2, 8, 14, Ohran discloses the method of claim 7. Ohran further discloses the system and medium as put forth in claims 2 and 14 respectively.

In claims 2, 8, 14, Ohran does not appear to explicitly disclose request, grant, release, and status messaging of the locking protocol.

However, Ofer discloses a further comprising: transferring at least one of: a message to request a lock (Col 2, Lines 21-37), a message to grant a lock (Col 2, Lines 21-37), a message to request release of a lock (Col 2, Lines 37-45), and a message to signal that a lock has been released between said client storage controller node and said owner storage controller node utilizing a messaging component (Col 2, Lines 21-37).

Ohran and Ofer are analogous art because they are from the same field of endeavor of disk storage system control.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Ohran and Ofer before him or her, to modify the storage system as taught by Ohran to include the elements taught by Ofer.

The motivation for doing so would have been to deploy another method for maintaining a logically-consistent copy of the backup data.

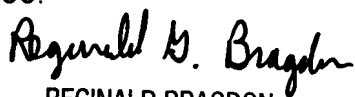
Therefore, it would have been obvious to combine Ohran with Ofer to obtain the invention as specified in the instant claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Loonan whose telephone number is (571) 272-6994. The examiner can normally be reached on Monday-Friday, 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald Bragdon can be reached on (571) 272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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